

CLAIMS

What is claimed is:

- 5 1. A method of inhibiting angiogenesis in a patient comprising,
 - a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof, wherein said endorepellin protein has an amino acid sequence of domain V of perlecan; and
 - 10 b) inhibiting generation of blood vessels into a tissue or organ.
2. A method of inhibiting angiogenesis in a tumor of a patient, comprising
 - a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof,
 - 15 wherein said endorepellin protein has an amino acid sequence of domain V of perlecan; and
 - b) inhibiting generation of blood vessels into said tumor.
3. A method of monitoring an angiogenesis-mediated disease or condition in a patient comprising measuring an amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, in a sample from said patient in which an increase in said amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, relative to that present in a sample derived from said patient at an earlier time indicates disease progression.
- 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995
4. The method of claim 3 wherein said monitoring comprises contacting said patient sample with an anti-endorepellin antibody and measuring an amount of immunospecific binding of endorepellin protein, its fragments or derivatives, or analogs thereof, to said antibody.
5. A method of monitoring an angiogenesis-mediated disease or condition in a patient comprising measuring an amount of said endorepellin protein, its

fragments or derivatives, or analogs thereof, in a sample from said patient in which a decrease in said amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, relative to that present in a sample derived from said patient at an earlier time indicates disease regression.

5

6. The method of claim 5 wherein said monitoring comprises contacting said patient sample with an anti-endorepellin antibody and measuring an amount of immunospecific binding of endorepellin protein, its fragments or derivatives, or analogs thereof, to said antibody.

10

7. A method of treating a tumor in a patient, comprising
- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
 - b) inhibiting angiogenesis in said tumor; and
 - c) inducing regression of said tumor.

15

8. A method of treating a patient with an angiogenesis-mediated disease or condition, comprising

20

- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- b) inhibiting angiogenesis in said patient; and
- c) inducing regression of said angiogenesis-mediated disease or condition.

25

9. A method of treating a patient with an angiogenesis-mediated disease or condition, comprising

30

- a) administering to said patient a conventional therapeutic regimen and a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- b) discontinuing said conventional therapeutic regimen;

- c) continuing administration to said patient of a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- d) inhibiting angiogenesis in said patient; and
- 5 e) inducing regression of said angiogenesis-mediated disease or condition.

10. The method of claim 9 wherein said conventional therapeutic regimen is at least one of radiation, chemotherapy or surgery.

10

11. A method of treating a tumor in a patient, comprising

- a) administering to said patient a conventional therapeutic regimen and a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- 15 b) discontinuing said conventional therapeutic regimen;
- c) continuing administration to said patient of a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- d) inhibiting angiogenesis in said tumor in said patient;
- 20 e) extending dormancy of metastases and inhibition of tumor growth; and
- f) inducing regression of said tumor.

12. The method of claim 11 wherein said conventional therapeutic regimen is at least one of radiation, chemotherapy or surgery.

25

13. A diagnostic kit for the detection or measurement of endorepellin protein, its fragments or derivatives, or analogs thereof, in a sample from a patient, comprising in at least one container an antibody that specifically reacts with a said endorepellin protein, its fragments or derivatives, or analogs thereof in said patient sample.

30

14. The diagnostic kit of claim 11 wherein said antibody is detectably labeled with at least one of a radiolabelled molecule, a fluorescent molecule, a chemiluminesor, an enzyme substrate or cofactor, or magnetic particles.
- 5 15. A pharmaceutical composition, comprising an endorepellin protein, its fragments or derivatives, or analogs thereof, and a pharmaceutically acceptable carrier or excipient.